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## **FACT SHEET**

### **FENCED SALVAGE AREA FORMER BRAC PARCEL 112 FORT GREELY, ALASKA**

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#### **1.0 INTRODUCTION**

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Space and Missile Defense Command (SMDC).

This fact sheet describes the site generally known as Fenced Salvage Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 112. The following database identifications apply to this site:

- Army Environmental Database – Restoration (AEDB-R) – FGLY-060
- ADEC Database Identification (RecKey) – 199633X927501 CS.

This site was a fenced salvage yard identified on a 1967 map. Storage and waste handling practices are unknown. The fence has since been removed.

#### **2.0 SITE LOCATION**

The site is located in the Northwest Undeveloped Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing - 194774, Easting – 199422.
- Physical Address: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn west on West Post Road. The site is located in wooded area south of West Post Road accessible by a trail.

#### **3.0 DESCRIPTION AND FINDINGS OF SITE WORK**

##### **3.1 Listing of Documents with Site Information**

The following documents contain information about this site:

1. U.S. Army (November 1967) Full Sized Drawing: Salvage Area, Open POL Storage
2. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report
3. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Fort Greely, Alaska (Table 5-1a)
4. Jacobs (April 1999) 1998 Remedial Investigation Report, Fort Greely, Alaska (Section 26)
5. Jacobs (August 2000) Summary Report 1999 Remedial Investigation/Removal Action, Fort Greely, Alaska (page 7-9)
6. USAED (December 2002) Soil Evaluation and Risk Assessment, Sites 85 South, 85 North, 133, and 112, Fort Greely, Alaska.

### 3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 112 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

Unexploded Ordnance (UXO) clearance work was performed in 1998 prior to invasive site investigation activities. Scrap metal and items related to munitions were found, including expended smoke grenades, slap flares, 5.56-mm blanks, 155-mm illumination projectile, 2.75-in. rocket fin, and a 0.50-caliber link. No UXO items were found. A geophysical survey was conducted over the northern area of the site to identify subsurface anomalies.

Nine test pits were excavated and four soil borings were drilled. Samples were analyzed for Diesel Range Organics (DRO), Residual Range Organics (RRO), Gasoline Range Organics (GRO), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Organic Compounds/Pesticides (OCP), Polychlorinated Biphenyls (PCBs), and metals. The following analytes were detected at concentrations exceeding ADEC Method Two migration to groundwater cleanup levels: methylene chloride, trichloroethene (TCE), alpha-HCH, DRO, arsenic, and chromium. Additionally, arsenic, 4,4-DDD, and 4,4-DDT exceeded ADEC Method Two ingestion cleanup levels. Arsenic and chromium were resolved as background concentrations. Although benzene was not detected, the detection limit was 0.27 mg/kg, well above the ADEC Method Two migration to groundwater cleanup level.

ADEC Method Three evaluation was conducted for this site to calculate Alternative Cleanup Levels (ACLs) under an industrial/commercial scenario, using site-specific soil and aquifer input parameters. The ACLs calculated using the ADEC Method Three web-based calculator were above the maximum reported concentrations for the following compounds: DRO, TCE, alpha-HCH, 4,4-DDD, and 4,4-DDT. However, maximum concentrations of methylene chloride remained above the migration to groundwater ACLs. A benzene concentration of 0.14 (one-half the detection limit) was assumed for purposes of the Method Three evaluation. This level exceeded the calculated ACL.

Leachability modeling was therefore conducted to address elevated methylene chloride concentrations. The results of modeling demonstrated that methylene chloride contamination would not impact groundwater above the ADEC groundwater cleanup level. The assumed benzene concentration was compared to the input and modeling results from BRAC Parcel 73 (Evergreen Road Fuel Spill). Based on this comparison, the assumed concentration of benzene at Parcel 112 is not anticipated to impact groundwater.

Cumulative risk and hazard index under the industrial scenario were  $7.4 \times 10^{-6}$  and 0.085, respectively; these levels are below the ADEC thresholds.

### 3.3 Cleanup Levels

The soil cleanup levels applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the “Under 40-Inch” precipitation zone, except for the ACLs that follow:

- DRO = 3,330 mg/kg (migration to groundwater ACL from ADEC Method Three calculation)
- benzene = 0.14 mg/kg (assume maximum concentration at site; one-half the detection limit)
- methylene chloride = 0.24 mg/kg (maximum detected concentration; leachability modeling for Parcel 112 demonstrates this concentration will not impact groundwater above the ADEC groundwater cleanup level)
- trichloroethene = 0.236 mg/kg (migration to groundwater ACL from ADEC Method Three calculation)
- HCH-alpha = 0.0223 mg/kg (migration to groundwater ACL from ADEC Method Three calculation)
- 4,4-DDD = 238 mg/kg (ingestion ACL from ADEC Method Three calculation)
- 4,4-DDT = 168 mg/kg (ingestion ACL from ADEC Method Three calculation).

### 3.4 Summary of Remaining Contamination

For the current industrial scenario, the cumulative risk and hazard index are below the ADEC targets. Based on the available information, the contamination remaining at the site does not exceed the ACLs developed from site-specific ADEC Method Three evaluations.

## 4.0 SITE STATUS AND REMEDY

After discussion with ADEC and the EPA the status of this site has not been resolved. The decision on site status will follow further studies of the migration pathway of contaminants to groundwater. Past studies and modeling using SESOIL indicated that contamination from this site would not migrate to groundwater but recent detections of TCE and benzene in groundwater at another site where SESOIL predicted similar results have caused concern. Once the migration to groundwater pathway is better understood, the following actions will likely be or already have been conducted at this site.

1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post’s Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.

2. In addition to the ACs described above, hard Institutional Controls (ICs) will be implemented at the site because the cumulative cancer risk under the residential exposure scenario exceeded the ADEC target. These more stringent ICs will take the form of deed

restrictions or similarly stringent site requirements under official post land documentation. The purpose of the ICs will be to maintain the industrial/commercial usage of the site and prevent future development of the site for residential purposes.

3. The site will be included in 5-yr reviews to periodically verify compliance with the ACs and ICs.

4. Administration of this site has been transferred to the Military Munitions Response Program (MMRP) Program because of the presence of scrap items associated with munitions. Additional site investigation or action under the MMRP program may be initiated.